

TITLE V OPERATING PERMIT STATEMENT OF BASIS

Facility Name: CalPeak Power - Border LLC

Title V Permit No.: APCD2008-TVP-978586

Permit Application Nos.: APCD2015-APP-004069 (Title V renewal)

Site ID: APCD2001-SITE-04211

Equipment Address: 2060 Sanyo Avenue
San Diego, CA 92154

Facility Contact: Brad Bergman
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Permit Engineer: Gary Smith
Date Completed: 9/1/2016

1.0 Purpose/Introduction

This statement of basis describes the renewal Title V permit for CalPeak Power – Border, LLC. Incorporated with this renewal is one administrative change (change of contact person). The sole basis for the Title V permit is that the facility is subject to the acid rain program under Title IV of the Federal Clean Air Act (CAA) which requires Title V permitting pursuant to 40 CFR § 70.3.

2.0 Background and permit History

The Title V permit was last renewed on June 14, 2011. Since the applicant submitted an application for renewal in 2015, an application shield is in place. Three administrative amendments were made to the Title V to change the responsible official since the last Title V renewal. There have been no other applications for changes to the equipment or the Title V permit since the last renewal.

3.0 Facility Description

The facility comprises two identical simple cycle natural gas-fired turbines with common electricity generator and exhaust (Twin-Pac). Both turbines are Pratt & Whitney FT-8 rated 27.4 megawatts each. Combined rated heat input is 500 million Btu/hr. Combined rated electric power generating capacity is 49.5 MW. The common exhaust system is equipped with emissions controls and monitoring equipment, including selective catalytic reduction (SCR) with ammonia injection for NOx control, oxidation catalyst system for CO control, data acquisition and handling system (DAHS), and continuous emissions monitoring systems (CEMS). The emission unit is summarized in the following table.

Permit Number	Source Category
APCD2008-PTO-976502	Gas Turbine

4.0 Site Emissions

Annual emissions of each criteria pollutant at this facility are less than 5 tons which is below major source thresholds. Aggregate HAPs and therefore any single HAP are below 1.0 tons per year. Based on reported emissions, the facility is not a major stationary source under District Rule 1401.

5.0 Title IV (Acid Rain) and Title V Permitting

The facility is subject to the acid rain provisions under District Rule 1412 and Title IV of the federal CAA, as given at 40 Code of Federal Regulation (CFR) § 72.6(a). Under the acid rain program, an *affected source* (a term specifically defined in Title IV of the CAA, and which applies to this facility) is subject to Title V permitting pursuant to District Rule 1401 and 40 CFR § 70.3(a)(4).

4.0 Applicable Requirements

4.1 Summary by Pollutant

Turbine Generator Unit (1)	
Pollutant	Primary Limiting Regulation(s)
NOx	Rule 20.2 (NSR); Rule 69.3.1; 40 CFR 60 Subpart GG
SO2	Rule 20.2 (NSR); Rule 62; Rule 53; 40 CFR 60 Subpart GG
VOC	Rule 20.2 (NSR)
CO	Rule 20.2 (NSR) (AQIA only)
PM10	Rule 20.2 (NSR); Rule 53
Toxic Pollutants	Rule 1200

4.2 Discussion

The above table summarizes those rules on which the permit conditions are based. The permittee must comply with the most stringent requirement, as cited in the permit, which also serves as the compliance measure for the less stringent requirements.

District Rule 20.2

Rule 20.2 New Source Review (NSR)-Non-Major Stationary Sources and Prevention of Significant Deterioration (PSD) Stationary Sources provides NSR prior to installation of a new unit or modification of an existing unit. The requirements of this rule were considered Prior to issuance of the ATC emission determinations required the use of pollutant specific best available control technology (BACT) for volatile organic compounds (VOC), nitrogen oxides (NOx), particulate matter (PM10) and sulfur oxides (SO2). Also, prior to ATC issuance, an air quality impact analysis (AQIA) was performed for NOx and CO in accordance with Rule 20.2(d)(2). No adverse impacts were indicated from the analysis;

however, permit conditions remain for both of these pollutants which ensure emissions remain within the framework of the original AQIA.

District Rule 1200

Rule 1200 Toxic Air Contaminants-New Source Review provides NSR for projects that emit toxic air contaminants. A health risk assessment (HRA) is required for any project that results in an increase in toxic air contaminants. Toxic Best Available Control Technology (TBACT) is required if the cancer risk indicated by the HRA is greater than one in one million. Prior to ATC issuance, a health risk assessment (HRA) was performed which indicated the risks were below levels under Rule 1200 requiring further action.

District Rules 69.3.1

Rule 69.3.1 Stationary Gas Turbine Engines – Best Available Retrofit Control Technology (BARCT) limits NO_x emissions from gas turbines with power ratings greater than 300 kilowatts and provides standards for compliance determination, monitoring and record keeping. The NO_x limit given in the District permit is 5 parts NO_x per million parts exhaust at 15% oxygen by volume on a dry basis (ppmvd) averaged over 3 hours with a maximum of 9 ppmvd. The permit limit, based on NSR Rule 20.2, is more stringent than the emissions standard of Rule 69.3.1. The means of required compliance determination, monitoring and record keeping given in the permit equals or exceeds in stringency that given by Rule 69.3.1.

District Rules 53 and 62

Rule 53 Specific Air Contaminants limits emissions of sulfur compounds (as SO₂) and particulate matter. The facility is also subject to Rule 62 which limits sulfur compounds in fuel (as H₂S). The permit limit for sulfur emissions, based on NSR Rule 20.2, is more stringent than the emissions standard under either of these rules. The means of required compliance determination given in the permit – use of PUC quality natural gas only – equals or exceeds in stringency that given by either of these rules.

40 CFR 60 Subpart GG

The natural gas-fired combustion turbines were determined to be subject to this new source performance standard *Standards of Performance for Stationary Gas Turbines* (adopted by reference in District Regulation X), which applies to stationary gas turbines that were constructed, modified or reconstructed after October 3, 1977. Both turbines are subject to this subpart and have permit conditions to include the applicable requirements. The permit limit, means of required compliance determination, monitoring and record keeping given in the permit based on NSR Rule 20.2 equal or exceed in stringency requirements given by 40 CFR 60 Subpart GG.

5.0 Monitoring, Record keeping and Reporting

As a requirement of New Source Review, District Rule 69.3.1, and 40 CFR 60 Subpart GG the facility is required to operate and maintain the continuous emission monitoring system (CEMS) to measure NO_x, CO, and NH₃.

Monitoring and testing are required in the existing District permit. For the Title V permit, additional record keeping and reporting are required pursuant to District Rule 1421.

Compliance Assurance Monitoring (CAM) applicability was considered pursuant to 40 CFR Part 64. The common exhaust stack for the turbines is expected to have pre-control emissions greater than the major source threshold for NO_x, which fulfills one of the three required criteria for applicability under this regulation. However, the emission unit is equipped with a continuous emissions monitoring system (CEMS) required by District Rule 69.3.1, therefore CAM does not apply based on § 64.2 (b)(vi).

6.0 Modifications to Emission Units at this Facility

7.0 Permit Shield

In accordance with District Rule 1410(p) and 40 CFR Part 70.6(f), a permit can include a provision precluding the permittee from enforcement action for certain requirements that either do not apply or that are subsumed by another requirement to which the permittee is subject, as stated in the permit. A permit shield, if granted, is limited as given by the aforementioned regulations.

The applicant has requested to maintain the existing permit shields which are provided at Section II. C of the permit. The requirements listed in the permit shield, were evaluated against the provisions of the aforementioned regulations. Each listed requirement in the permit shield was determined to be acceptable because it either does not apply or it is subsumed in stringency by another requirement given in the permit.

8.0 Outside Review

In accordance with District Rule 1415, the District is submitting the proposed draft permit for public notice and review by EPA Region 9 and affected states.

9.0 Conclusions / Recommendations

The source is expected to comply with all applicable requirements including those cited in the current District permit as well as those under District Rule 1401 and Title V. Therefore, the recommendation of this report is for the subject initial Title V permit to be issued following public notice and EPA review.